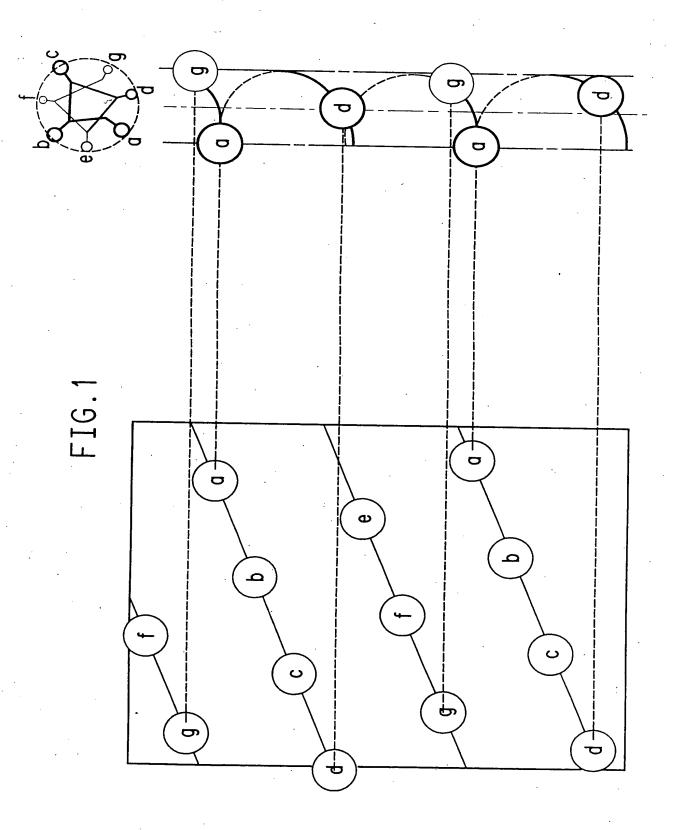
1/25

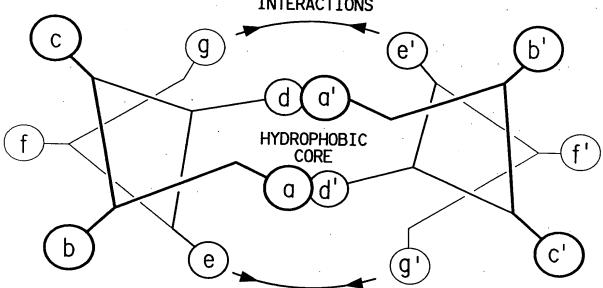


Title: Chimeric Genes and Methods for Increasing

the Lysine Content of the Seeds of Plants
Applicant: S. C. Falco et al.
Docket No.: BB1037 US CNT

FIG.2A





POTENTIAL ELECTROSTATIC INTERACTIONS

3/25

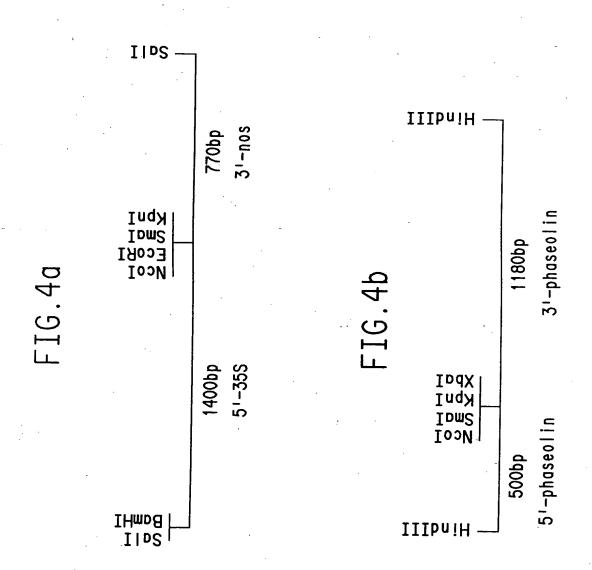
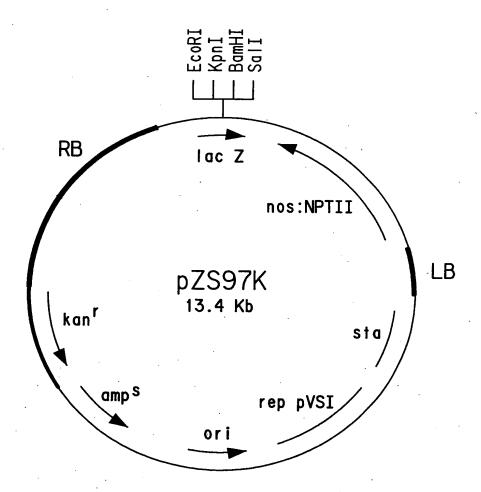


FIG.5



5/25

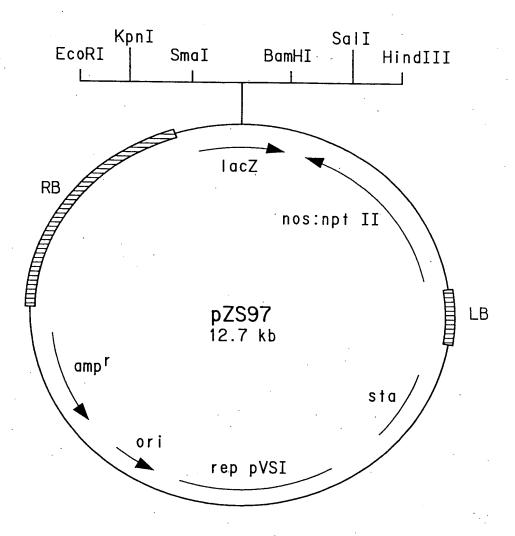


FIG.6

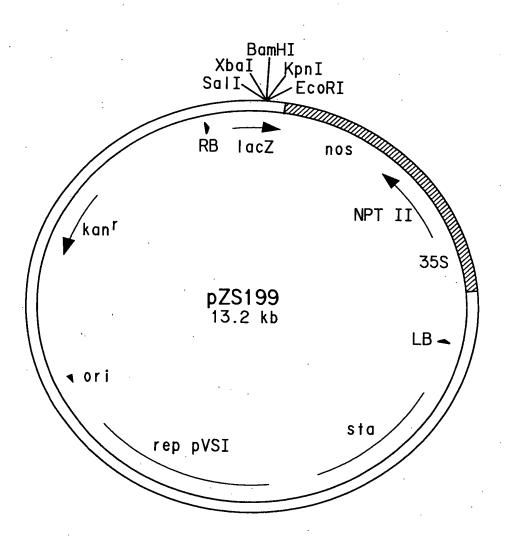


FIG.7A

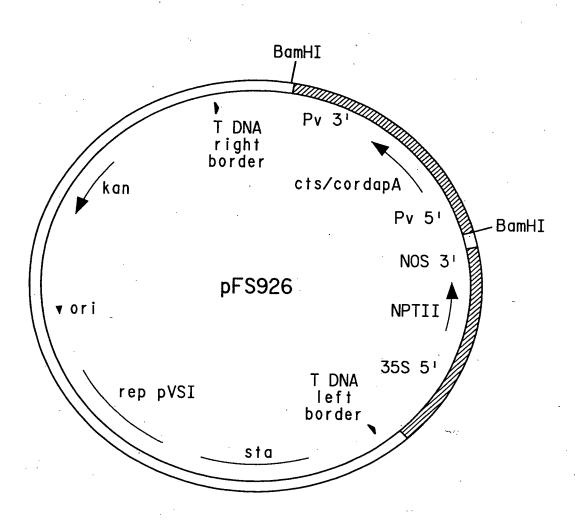


FIG.7B

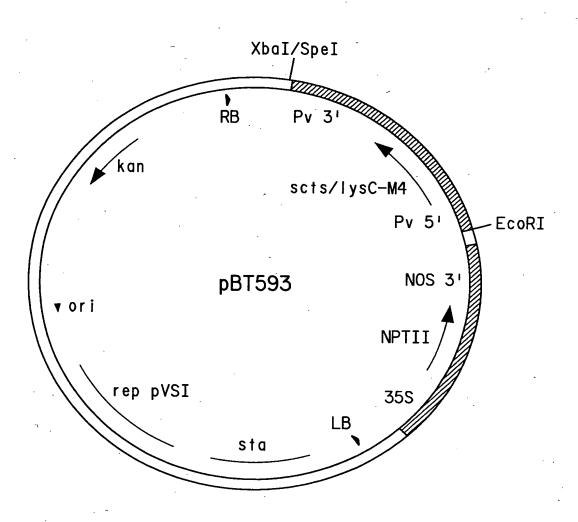


FIG.7C

9/25

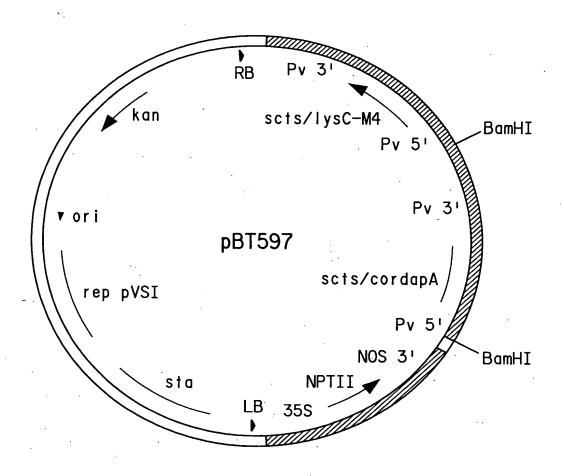


FIG.7D

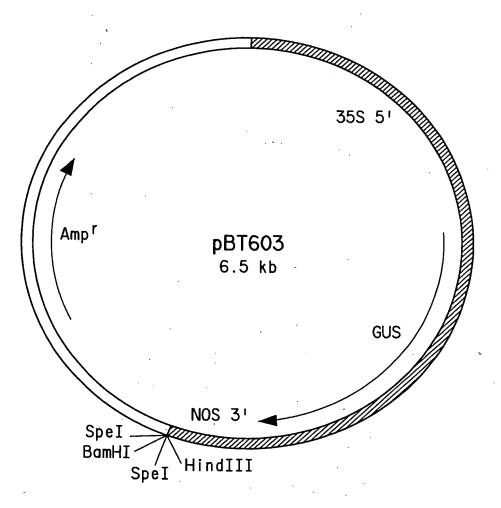


FIG.8A

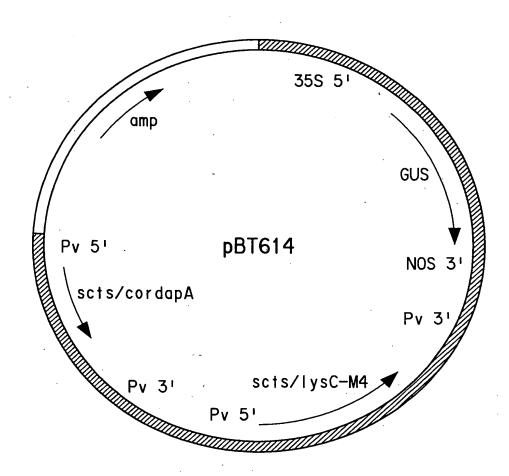
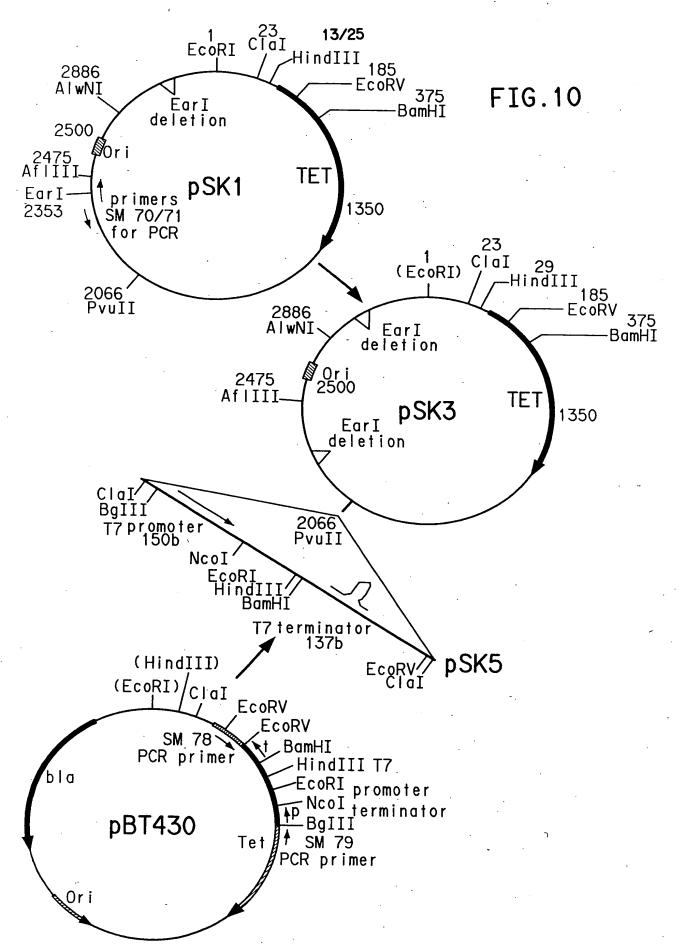


FIG.8B

19 KKSGVLILGAGRVXRPAADFLASVRTISSQQWYKTYFGADSEEKTDVHVI 68  :  .  .      . 1 MGKNVLLLGSGFVAQPVIDTLAANDDINVT 30	69 VASLYLKDAKETVEGISDVEAVRLDVSDSESLLKYVSQVDVVLSLLPASC 118   :   : :  :   :   :   :   :   :   :	119 HA 120  :   80 HP 81	1 KHTATLLEFGDIKNGQTTTAMAKTVGIPAAIGALLLIEDKIKTRGVLRPL 50 .: .  ::: .: 4 TRTSTLVDYGKVGGYSSMAATVGYPVAIATKFVLDGTIKGPGLLAPY 420	51 EAEVYLPALDIL.QAYGIKLMEKAE 74 .: :   :-   :     -  . 421 SPEINDPIMKELKDKYGIYLKEKTVA 446
19	31	119 80	1	51
SEQ ID NO:104 S. cerevisiae SDH			SEQ ID NO:105 S. cerevisiae SDH	

Title: Chimeric Genes and Methods for Increasing the Lysine Content of the Seeds of Plants

Applicant: S. C. Falco et al. Docket No.: BB1037 US CNT



Title: Chimeric Genes and Methods for Increasing

the Lysine Content of the Seeds of Plants

Applicant: S. C. Falco et al. Docket No.: BB1037 US CNT

14/25

ASP718ECORI CT CCTCTTCTACT TCCGCTA, CCTTCTC TTCGACTTCCGCACTATCCATGGCTTAA CATGBAGGAGAAGATGAAGGC GATGBAAGAGAAGATGAAGGCGFGATAGGTACGG  $\prec$ ≥  $\succeq$ EARI ليا ш  $\succeq$ ≥  $\mathbf{x}$ لىا ш

≥

CCTCCTCTTCTACTTCCGCTA X GATGGAGGAGAGATGAAGGC ≥  $\times$ ш ш

GATE TO EARI CUT VECTOR

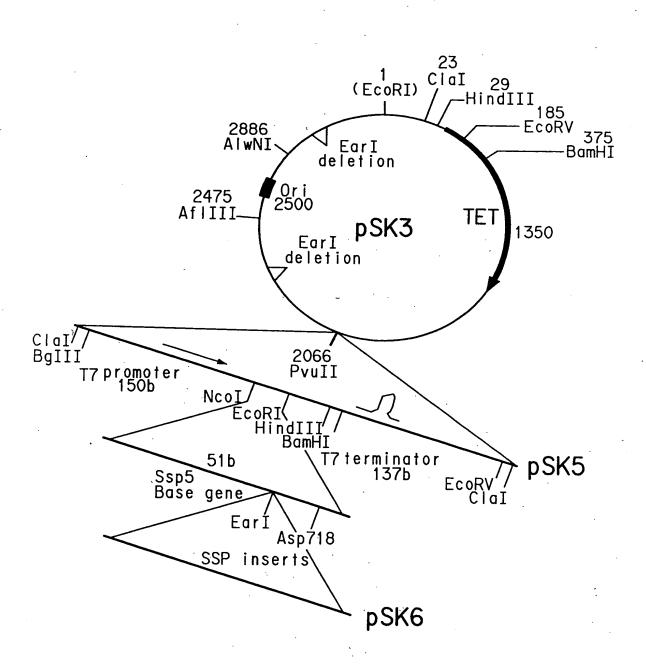
ASP718ECORI CT CCTCTTCTACT TCCGCTA CCTCCTCTTCTACTTCCGCTA CCTTCTC TTCGACTTCCGCACTATCCATGGCTTAA CATGAGGAGAGATGAAGGC GATGGAGGAGAGATGAAGGC GATGGAAGAGAGAGAAGATGAAGGCGTGATAGGTACCG ≥ · • . ليا EARI لبا ≥ V ≥  $\preceq$ لبا ليا ≥ Ø  $\prec$ ≥  $\leq$ سا ليا ≥

Title: Chimeric Genes and Methods for Increasing the Lysine Content of the Seeds of Plants

Applicant: S. C. Falco et al. Docket No.: BB1037 US CNT

15/25

FIG.12



Title: Chimeric Genes and Methods for Increasing the Lysine Content of the Seeds of Plants

Applicant: S. C. Falco et al. Docket No.: BB1037 US CNT

BASE GENE

ECORI

BSPHI STOP ASP718

EARI

FIG. 13

GCTTCTCTTCTACTTCCCAGTACTTCACTATCCATGGCTTAA

CTCCTCTTCTACTTTTCTA

CATGGAGGAGAGATGAAAAA

× × × ×

×

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 $\sim$ 

≥

 $\prec$ 

لبا

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GCTC[GAAGAG]AAGATGAAGGTCATGAAGTGATAGGTACCG

16/25

CCTTCTTTCTACTTCCGATACCTCCTGTTCTACTTTACCGAACTCCTTTTCTACTTCTCGA

GCTGGAAGAAAAGATGAAGGCTATGGAGGAGAGATGAATGGCTTGAGGAAAAGATGAAGAA

OLIGONUCLEOTIDE INSERTS

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OLIGOS LIGATED INTO EARI CUT BASE GENE

CTCCTCTTCTACTTTTCTA CCTTCTTTCTACTTCCGATACCTCCTGTTCTACTTTACCGAACTCCTTTTCTACTTCTTCGA <u>CATGG</u>AGGAGAAGATGAAAAA GCTGGAAGAAAAGATGAAGGCTATGGAGGAGAAGATGAAATGGCTTGAGGAAAAGATGAGCT

교 자 **=**  $\prec$ ≥ ¥ ليا ш ≥ E X X X ≥ × ×  $\prec$ ш ш Σ

≥

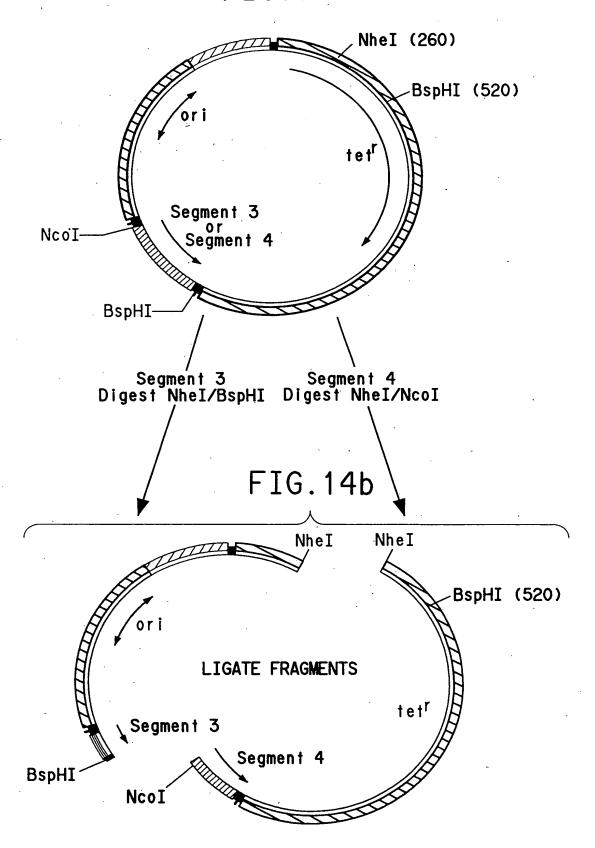
ASP718 ECORI **BSPHI** 

CLONE pSK34 GCTTCTCTTCTACTTCCAGTACTTCACTATCCATGGCTTAA deaagadaagatgaagdtcatgaagtgataggtacdg

 $\leq$ ≥ >  $\prec$ ≥  $\prec$ ليا ليا

17/25

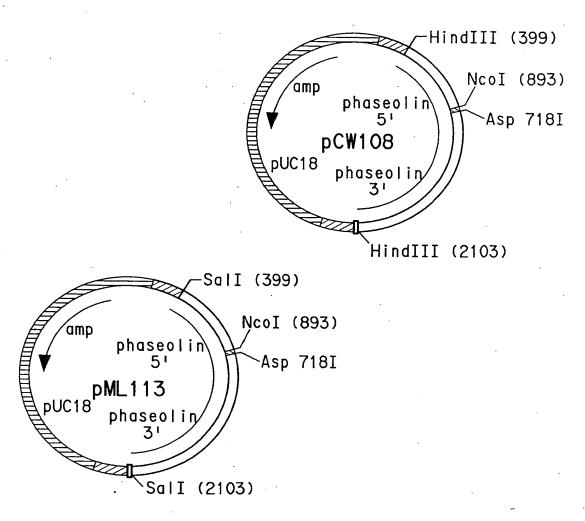
FIG.14a

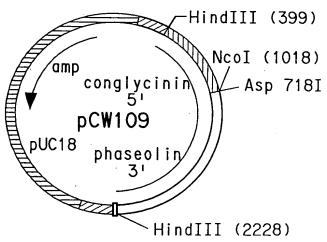


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Applicant: S. C. Falco et al. Docket No.: BB1037 US CNT

18/25 FIG.15





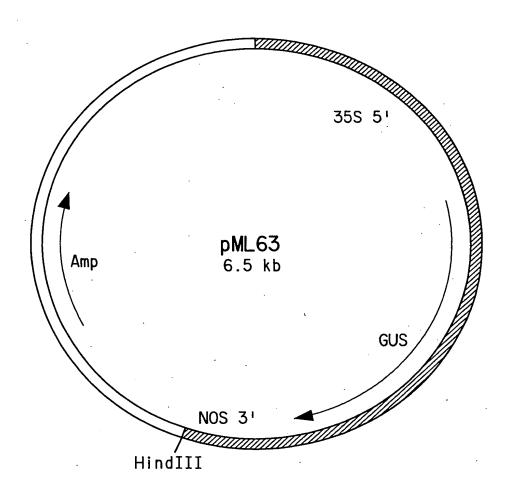


FIG.16

20/25

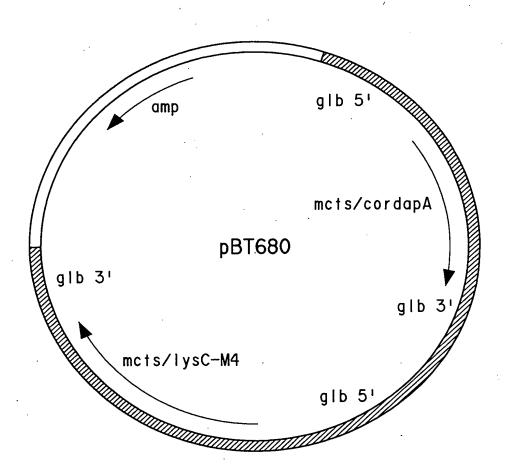


FIG.17

21/25

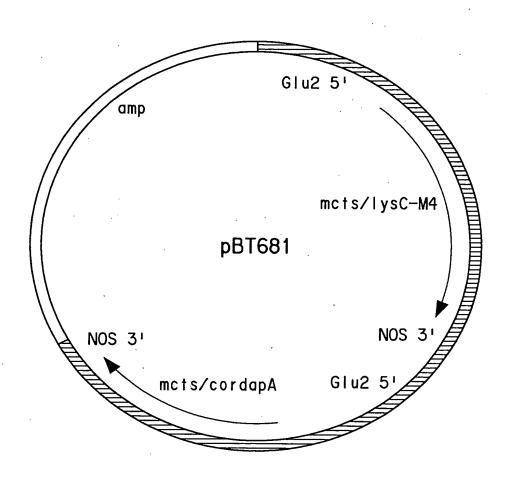


FIG. 18

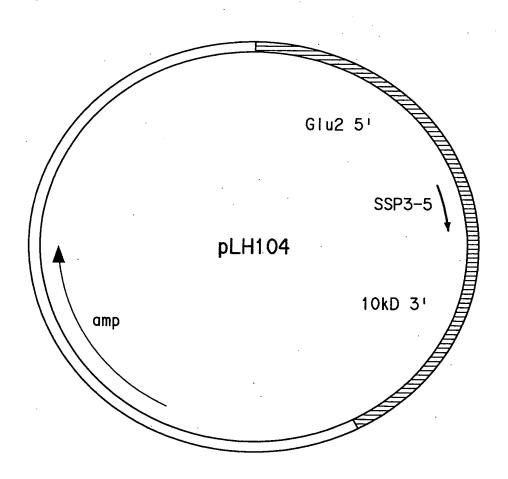


FIG.19

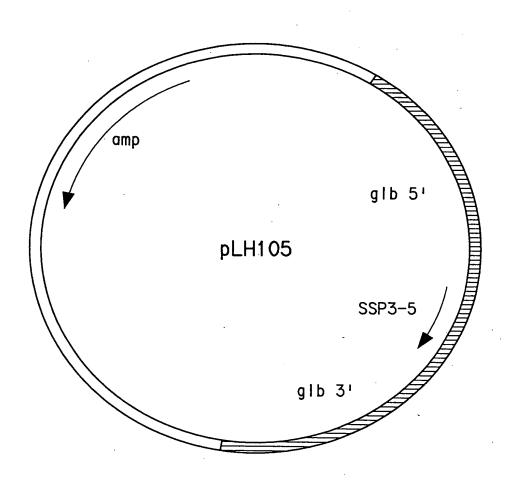


FIG.20

24/25

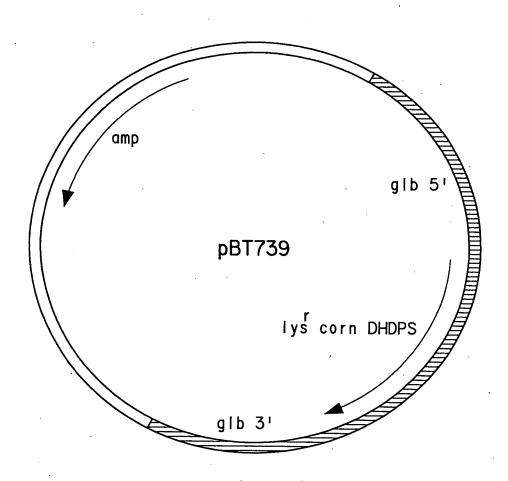


FIG.21

25/25

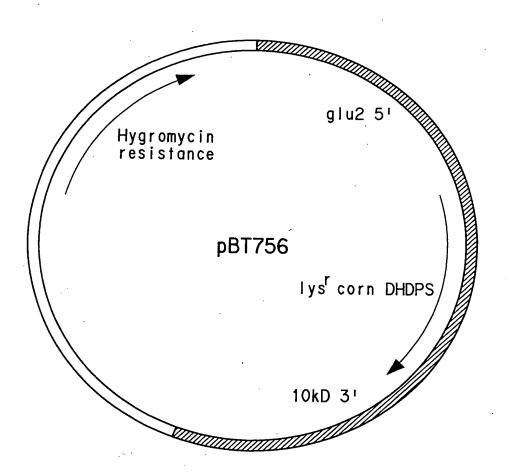


FIG.22